

Title (en)

LINE NARROWED LASER WITH BIDIRECTION BEAM EXPANSION

Title (de)

SCHMALBANDIGER LASER MIT BIDIREKTIONALER STRAHLERWEITERUNG

Title (fr)

LASER A RAIE RETRECIE AVEC DILATATION BIDIRECTIONNELLE DE FAISCEAU

Publication

**EP 1240694 B1 20061122 (EN)**

Application

**EP 00991696 A 20001215**

Priority

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- US 73804200 A 20001215

Abstract (en)

[origin: WO0147074A1] A grating (16) based line narrowing unit with bi-directional beam expansion for the narrowing lasers. In a preferred embodiment a beam from the chamber of the laser is expanded in the horizontal direction with a three-prism beam expander (8, 10, 12) and is expanded in the vertical direction with a single prism (60). A narrow band of wavelengths in the expanded beam is reflected from a grating in a Littrow configuration back via the two beam expanders into the laser chamber for amplification.

IPC 8 full level

**H01S 3/08** (2006.01); **H01S 3/1055** (2006.01); **G03F 7/20** (2006.01); **H01S 3/04** (2006.01); **H01S 3/10** (2006.01); **H01S 3/105** (2006.01); **H01S 3/134** (2006.01); **H01S 3/225** (2006.01)

CPC (source: EP US)

**G03F 7/70025** (2013.01 - EP US); **G03F 7/70575** (2013.01 - EP US); **H01S 3/0401** (2013.01 - EP US); **H01S 3/10** (2013.01 - EP US); **H01S 3/1055** (2013.01 - EP US); **H01S 3/105** (2013.01 - EP US); **H01S 3/134** (2013.01 - EP US); **H01S 3/225** (2013.01 - EP US)

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